

Title (en)
METHOD FOR MANUFACTURING DUST CORE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES PULVERKERNS

Title (fr)
PROCÉDÉ DE FABRICATION DE NOYAU À POUDRE DE FER

Publication
EP 3355327 A4 20190327 (EN)

Application
EP 16846635 A 20160916

Priority
• JP 2015182757 A 20150916
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Abstract (en)
[origin: EP3355327A1] Provided is a method for manufacturing a powder magnetic core having excellent rust prevention while high electric resistance and high insulation properties are secured. The method for manufacturing a powder magnetic core of the present invention is a method for manufacturing a powder magnetic core having Fe-M (M: Al or Cr)-based alloy particles bonded via an oxide phase in which the element M is concentrated, in which the method includes: a first step of mixing a binder with a soft magnetic material powder containing Fe-M (M: Al or Cr)-based alloy particles on which an insulating layer is formed; a second step of filling a pressing die with a mixture obtained through the first step, subjecting the mixture to pressing to obtain a green compact, and slidably demolding the green compact from the pressing die; a third step of processing the green compact after the second step and removing an expansion deformed matter of the alloy particles present in a region of pressing flaws formed on a surface of the green compact during the slidably demolding; and a fourth step of subjecting the green compact after to the third step to a heat treatment to oxidize surfaces of the Fe-M (M: Al or Cr)-based alloy particles at a high temperature, so that the oxide phase is formed.

IPC 8 full level
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C-Set (source: EP US)
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Citation (search report)
• [Y] WO 2015108059 A1 20150723 - HITACHI METALS LTD [JP]
• [Y] JP 2011181654 A 20110915 - KOBE STEEL LTD
• [Y] EP 2562771 A1 20130227 - SUMITOMO ELECTRIC INDUSTRIES [JP]
• [A] JP 2007162103 A 20070628 - HITACHI METALS LTD
• [A] JP 2005220438 A 20050818 - HITACHI METALS LTD
• See references of WO 2017047764A1

Designated contracting state (EPC)
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